

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims replaces all prior versions, and listings, of claims in the application. Reexamination and reconsideration in light of the proposed amendments and the following remarks are respectfully requested.

Rejections under 35 USC § 103

- 1) The rejection of claims 1-6 and 8-10 under 35 USC § 103(a) as being unpatentable over Schultz (USP 4,029,991) in view of Lloyd (Another Darlington Pair Speed Control), is respectfully traversed.

In this rejection, it is admitted that the Schultz does not “appear” to disclose the use of a “complementary Darlington Pair” as claimed. In order to overcome this admitted shortcoming, the rejection cites Lloyd and asserts that it would have been obvious at the time of invention to replace the Darlington Pair used in Schultz with that used in Lloyd, in that this would take advantage of the reduced voltage drop across the “Complementary Darlington Pair” thereby increasing efficiency. This is accompanied by the statement that “the same amount of current amplification can be achieved with one less Vbe drop.”

First, it is not seen that current “amplification” has any relevance to surge suppression and in fact might even suggest the reverse. Second, the Darlington Pair in Lloyd is directed to motor speed control, and is such that a potentiometer is connected to the base of NPN transistor and the motor is circuited between the emitter of the NPN transistor and the 0 volt line. The object of this is to minimize the reduction of the maximum voltage that can be applied to the motor M reduce the voltage loss which occurs across the transistors of a Darlington Pair from 1.4V to 0.7V.

While the Lloyd arrangement may reduce the voltage loss to the motor M and therefore have some bearing on the “efficiency” of the Lloyd arrangement, surge suppression is clearly not an issue. In fact, on the second page of Lloyd, it is set forth that the power supply for this circuit “should preferably be un-smoothed” (suggesting the absence of surge suppression) to prevent the motor ‘sticking’ at low speeds.

It is submitted that Lloyd does not contain any suggestion that the disclosed circuit would have any surge suppressing function that would lead the hypothetical person of ordinary skill to consider transferring teachings from Lloyd to Schultz, and nothing to suggest that the Darlington Pair arrangement disclosed in Schultz could be improved. Indeed, the LED display 30 of Schultz cannot be compared with the power consuming motor M of Lloyd, and the circuit arrangement disclosed in Schultz must be considered to be fully adequate for its disclosed purpose. That is to say, there is no suggestion that the Schultz circuit arrangement is subject to any problems that might even remotely motivate the hypothetical person of ordinary skill to consider reviewing the art for a solution to the same.

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

It is respectfully submitted that there is nothing other than the disclosure of the instant application that suggests the claimed arrangement. Suggestion to modify the arrangement disclosed in Schultz to have a "Complementary Darlington Pair" as a surge suppressing arrangement is simply not forthcoming from the art of record.

Indeed, it must be appreciated that in the Schultz arrangement, the base of Darlington pair 28 is connected with a transistor 40 which is responsive to the status of a switch 16 that controls the parking lights 18 of the vehicle. When switch 16 is open and transistor 40 is rendered non-conductive, the voltage drop across the two transistors of the Darlington Pair 28, is used to lower the voltage applied to the LED display from 8

volts to 6.8 volts. This, as disclosed at column 2, lines 47-50, is sufficient to maintain the display at its maximum brightness. However, when the switch 16 is closed, indicating the loss of ambient illumination, current is drawn through resistor 38 and the voltage applied to the LED display is further lowered to dim the display in accordance with the reduced level of ambient light.

Thus, the Darlington Pair used in Schultz is at least intended to enable the voltage applied to the LED display 30 to be varied in accordance with the ambient light conditions as indicated by the status of switch 16. Reducing the voltage drop and raising the voltage applied to the display, as would occur in the event that the allegedly obvious modification of the Schultz arrangement were to be implemented, would tend to induce the risk of applying too high a voltage to the display and thus induce the chance of possible damage. It is submitted that the hypothetical person of ordinary skill would not be inclined to make the purportedly obvious swap at least due to the fear of damaging the display through the application of an elevated voltage.

It is submitted that that the combination of Schultz and Lloyd in the manner advanced in this rejection would not result in a *prima facie* case of obviousness. Accordingly, it is requested that the rejection be withdrawn.

- 2) The rejection of claim 7 under 35 USC § 103(a) as being unpatentable over Schultz, Lloyd and further in view of Anderson, is respectfully traversed.

Anderson is cited to show a capacitor in a Darlington Pair surge suppressing voltage clamping circuit. The motivation for considering the teachings of this reference in combination with Schultz and Lloyd is alleged to be that when the circuit was off there would be no leakage current flowing through the Darlington Pair, and that this would lead to increased power conservation and less unnecessary heat build-up.

The nexus with the attenuation of leakage current power consideration in the arrangement disclosed in Schultz is not understood and would appear not to have been established in this rejection. Further, it is to be noted that the Anderson arrangement shows a non-complementary type of Darlington Pair and that is essentially the same as that which is used in Schultz.

The citation of Anderson therefore reinforces the tendency to use a non-complementary arrangement as distinct from that which would result from the purportedly obvious modification of Shultz.

To further distinguish the claimed subject matter over the cited references, claim 7 has been amended to call for the capacitor to be connected between ground and the base of the second transistor and in parallel with the Zener diode (recited in claim 2). It is submitted that this would not result from the combination of art on which this rejection is based.

Conclusion

It is respectfully submitted that the claims as they stand before the PTO are allowable for at least the reasons advanced above. Favorable reconsideration and allowance of this application are courteously solicited.

Date February 03, 2005

FOLEY & LARDNER LLP
Customer Number: 22428
PATENT TRADEMARK OFFICE
Telephone: (202) 672-5485
Facsimile: (202) 672-5399

Respectfully submitted,

By 

William T. Ellis
Registration No. 26,874

Keith J. Townsend
Registration No. 40,358